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Report and Recommendations of the Noise Review Board on Reducing Nighttime Noise from Garbage and Recycling Collection – September 8, 2004

Executive Summary

During the Noise Control Task Force and the Noise Review Board's four-year study of noise issues within our city, the pervasive noise of nighttime garbage and recycling collection was identified as a growing cause of citizen complaint.

In concentrated study of this issue, it was found that the sound levels associated with nighttime collection are in a decibel range significant enough to impact the health of the community.

The Board finds that our current system of responding to complaints is neither effective nor efficient in resolving community concerns related to nighttime collection. The system, jointly operated by the Office of Neighborhood Involvement and the Office of Sustainable Development, relies primarily on requests from the City for voluntary action on the part of garbage haulers and their commercial customers to resolve complaints.

After reviewing the work of the Noise Control Task Force (2001) and the research and findings of city staff, the Noise Review Board recognizes that the most effective way to eliminate this source of nighttime noise would be the most obvious: to simply ban collection at night. If noise were the only consideration, that would be the Noise Review Board's straightforward recommendation. However, it appears that the effects of such a ban could go far beyond nighttime noise reduction, with impacts that the Noise Review Board and its staff are not equipped to evaluate. Among the unintended consequences could be increased daytime traffic congestion in those busy neighborhoods as garbage trucks operate and double-park, as well as an interruption of pedestrian traffic as haulers roll dumpsters across sidewalks.

Because of these considerations, the Noise Review Board recommends that a thorough evaluation of the option of a nighttime garbage and recycling collection ban be made should it be found that no other solution is adequate.

A second far-reaching solution would be to institute some form of franchising of commercial collection in Portland. The Noise Review Board felt that franchising would offer an immediate improvement to the noise impact on the community. The Board respectfully recommends that City Council implement a Commercial Franchising system for recycling and garbage collection. The Noise Review Board learned that all of the communities surrounding the City of Portland use a commercial franchise system, as do many major cities in other states. The idea is not unusual and should not be regarded as unfriendly to business, since this model is used throughout Oregon and is common elsewhere.

The final option for City Council is the implementation of the full body of mitigation techniques outlined by the Garbage Truck Noise Subcommittee in their April 16, 2004 report to the Board. These include a list of items that both commercial haulers and the City should implement immediately and one item that city planners should incorporate in Title 33. A second list of 8 other items, which would be applied on an individual complaint basis, is included in the body of work from the Subcommittee. All of these items are further detailed in the full body of the Noise Review Board's report.

Public Input and the General Process

In arriving at its recommendations, the Noise Review Board reviewed the work done over the previous four years by all study participants:

- Interested citizens and citizen groups
- Noise Control Task Force
- Garbage Noise Subcommittee
- Noise Control staff at the Office of Neighborhood Involvement
- Solid Waste and Recycling staff at the Office of Sustainable Development

The Board, its Garbage Noise Subcommittee, and city staff used an extensive mailing list, contacted some business groups directly, held a public hearing and several public committee meetings to discuss the study's progress and recommendations.

This report and recommendations document includes the following attachments. In many instances, this report will refer to an attachment rather than repeating the content of the attachment.

- A. Recommendations of the Noise Review Board Subcommittee on Garbage Collection (April 16, 2004)
- B. Minutes of Noise Review Board Public Comment Hearing (May 3, 2004) and any additional public comments
- C. Daly-Standlee & Associates, Inc. Report on Investigation of Dumpster Noise Controls
- D. Daly-Standlee & Associates, Inc. Report on Investigation of Garbage Truck Fork Noise Control Treatment
- E. Noise Control Task Force Final Report, Garbage Section

Issues & General Conclusions

Current trends in planning and development are creating more neighborhoods of mixed uses and high density within Portland. This makes efficient use of many public resources, including transportation and utility systems, and reduces certain environmental impacts. In terms of livability, residents of a mixed-use neighborhood may appreciate its liveliness during their waking hours, but be badly stressed by nighttime noise emanating from nearby businesses. Too often, urban planners and engineers fail to account for the issue of environmental noise pollution.

During the Noise Control Task Force's and Noise Review Board's four-year study of noise issues within our city, the pervasive noise of nighttime garbage and recycling collection was identified as a growing cause of citizen complaint.

In concentrated study of this issue, it has been found that the sound levels associated with nighttime collection are in a decibel range significant enough to impact the health of the community.

A few examples of such impacts include elevated blood pressure levels, elevated respiratory levels, and the obvious impact of arousal from a state of sleeping. Indeed, it was found that in some areas, residents may be awakened multiple times during the night, affecting not only

individual physical and mental health but also possibly endangering the public safety should that sleep-deprived individual operate a motor vehicle or work in the health care system, for example.

The Board also finds that our current system of responding to complaints is neither effective nor efficient in resolving community concerns related to nighttime garbage and recycling collection.

The current system, operated jointly by the Office of Neighborhood Involvement and the Office of Sustainable Development relies primarily on requests from the City for voluntary action on the part of garbage haulers and their commercial customers to resolve complaints. This system places too much discretion in the hands of businesses, which may choose to mitigate a noise disturbance, or simply to ignore the request for action.

After reviewing the work of the Noise Control Task Force and the research and findings of city staff, the Noise Review Board recognizes that the most effective way to eliminate this source of nighttime noise would be the most obvious: to simply ban collection at night. If noise were the only consideration, that would be the Noise Review Board's straightforward recommendation. However, it appears that the effects of such a ban would go far beyond nighttime noise reduction, with impacts that the Noise Review Board and its staff are not equipped to evaluate. Among the unintended consequences could be increased daytime traffic congestion in those busy neighborhoods as garbage trucks operate and double-park, as well as an interruption of pedestrian traffic as haulers roll dumpsters across sidewalks.

Because of these considerations, the Board recommends that a thorough evaluation of such a ban be completed if the time arrives that no other solution is adequate.

A second effective response would be to institute some form of franchising of commercial collection. Historically, Portland's commercial garbage collection system has not been franchised; it is open and competitive. Currently more than 50 haulers offer garbage and recycling collection for businesses and apartment owners. Those customers are free to choose their hauler, to negotiate rates, and to agree on the services to be provided, including the hours of service.

The Board learned that all of the communities surrounding the City of Portland use a commercial franchise system. Many major cities in other states use systems, such as franchise, contract, or municipal service, which do not allow customer choice but provide for government-set rates and service standards, in a type of public utility model. This idea should not be regarded as unfriendly to business since the model is used throughout Oregon and elsewhere.

The effect of allowing multiple haulers to collect at night within any single neighborhood results in large numbers of trucks collecting in most dense mixed-use neighborhoods. Under the current non-franchised system, neighboring businesses often sign up with different haulers. Given that each hauler must use one truck for garbage and another one or two trucks for recycling, a neighborhood with several haulers has many trucks in circulation. Businesses generating food waste, such as restaurants, need frequent, sometimes daily, collection.

Again, if reducing nighttime noise were the only consideration, the Board would expect a recommendation for instituting a franchise system to be an easy topic to raise. However, it is

generally accepted that many Portland business owners are opposed to losing their choice of hauler and the ability to negotiate rates, and may appear before Council to argue that view. While the Board views franchising as a means of creating a balance between the needs of urban dwellers and the needs of the business community, businesses may feel that this is another example of Portland's being heavy handed with its commercial community. Based on the wide extent of other communities using a commercial franchise model, this argument seems unfounded.

The Board recognizes the challenge in requesting that the City Council further evaluate the benefits of creating commercial franchising in Portland. Although the City Council advised the Board to look for other options, after four years of examining the issue and its possible solutions from many perspectives, the Board finds that the benefits of franchising strongly outweigh any detriments.

Recommendations

The Noise Review Board recommends that there be a thorough evaluation of a ban on nighttime collection if the time arrives that no other solution has been found to be adequate.

At this time however, the Board endorses a franchise system as an effective means of reducing the number of noisy trucks operating at night, and thus of protecting public health and neighborhood livability.

During the four-year study of nighttime noise from garbage and recycling collection, the majority of time was spent researching specific noise-generating activities of collection, and evaluating methods of mitigating the noise.

The Board recommends that the following be implemented immediately whether or not franchising is adopted. These recommendations fall into two categories. The first four are provisions that should be instituted by all commercial haulers and the City.

- 1. "Best Practices" training for all drivers who operate collection vehicles at night. In nighttime fieldwork, staff observed that driver behavior appeared to be the single most important factor affecting noise generation.
- 2. "Smart" back-up alarms on all collection vehicles operating at night (adopted by the Office of Sustainable Development July 1, 2002). These alarms sense the level of ambient noise and adjust appropriately. In quiet conditions the alarm beeps at much quieter levels.
- 3. **Promotion by the city of its complaint process** for nighttime collection noise problems. Citizens' anger is increased because they feel they have no access to a complaint system.
- 4. The Bureau of Development Services should take nighttime noise generation into account when reviewing pickup locations proposed in development site plans. One way to address this concern is incorporating new language in Title 33.

The second group of recommendations includes provisions to be applied once a complaint has been received by the city about a specific location and/or operation. Each of these is discussed in more detail in Attachment A, the Noise Review Board Subcommittee on Garbage Collection Report.

- 5. Restrict hours of glass collection at the site (adopted by the Office of Sustainable Development as of September 2, 2002). If a complaint is received regarding glass recycling collection at night at a specific site, the glass recycling collection there will need to occur during the day.
- 6. Treat lid supports with a sound-deadening coating (adopted by the Office of Sustainable Development as of September 2, 2002). This is a small metal arm that is anchored on one end so it can be rotated so as to support the lid in an open position. During container lifting, the arm swings freely and can strike other metal objects.
- 7. **Treat the containers ("dumpsters") with sound-deadening material.** The reverberation of the sides of the metal containers creates loud noises. See Attachment C, Daly-Standlee & Associates, Inc. Report on Investigation of Dumpster Noise Controls.
- 8. **Treat the forks on the trucks with sound-deadening material.** A great deal of noise is generated by metal forks on the truck within metal sleeves on the container, when the truck lifts a container and rocks it back and forth to empty it completely. See Attachment D, Daly-Standlee & Associates, Inc. Report on Investigation of Garbage Truck Fork Noise Control Treatment.
- 9. Use plastic lids or plastic dumpsters, where the Fire Marshal will allow their use.
- 10. Individual case review by the Office of Sustainable Development and the Office of Neighborhood Involvement to solve unique cases. Additional policy development will be required for issues that arise in these reviews. For example, who pays the costs of recommended/required changes? Should the hauler pay, or the entity contracting the hauler's services, or both?
- 11. Change collection hours and/or location of garbage/recycling containers.
- 12. **Apply new technologies as they become available.** These features are expected to reduce truck engine noise associated with generating the power to lift containers. Some possibilities include low rpm, high output pumps; or pumps with speed control; or engine rpm, throttle limits.

In order to apply new technologies as they become available, ongoing city staff time, and perhaps other resources, will be required for research and evaluation.

With the implementation of the measures recommended in this report, the Board believes that the quality of life in our City will be greatly improved and we will continue to demonstrate Portland's leadership on urban livability issues.

The Board recommends that Council provide the necessary financial support for researching these new technologies and more importantly adequately fund enough staff to review and resolve citizens' concerns related to noise throughout the city including night-time garbage and recycling collection. The Board feels that the City currently has inadequate staff in the Office of Neighborhood Involvement and the Office of Sustainable Development to effectively administer the recommendations, if they are approved by Council.

ATTACHMENTS

A. Recommendations of the Noise Review Board Subcommittee on Garbage Collection (April 16, 2004)	Canary Cover Page 7 pages
B. Minutes of the Noise Review Board Public Comment Hearing on May 3, 2004 and Additional Public Comments	Green Cover Page 16 pages
C. Daly-Standlee & Associates, Inc. Report on Investigation of Dumpster Noise Controls	Blue Cover Page 30 pages
D. Daly-Standlee & Associates, Inc. Report on Investigation of Garbage Truck Fork Noise Control Treatment	Salmon Cover Page 20 pages
E. Noise Control Task Force Final Report, Garbage Section	Orchid Cover Page 5 pages